

USAREUR Regulation 385-64

Safety

USAREUR Explosives Safety Program

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For the Commander:

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Summary. This regulation prescribes USAREUR ammunition- and explosives-safety standards.

Applicability. This regulation applies to U.S. Army units in USAREUR, regardless of command affiliation, that store and handle ammunition and explosives.

Supplementation. Commanders will not supplement this regulation without CG, USAREUR/7A (AEAGA-S), approval.

Forms. USAREUR and higher-level forms (printed and electronic) are available through the USAREUR Publications System.

Suggested Improvements. The proponent of this regulation is the Office of the Deputy Chief of Staff, Personnel, HQ USAREUR/7A (AEAGA-S, 370-8124/8084). Users may suggest improvements to this regulation by sending a DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the Commander, USAREUR/7A, ATTN: AEAGA-S, Unit 29351, APO AE 09014.

Distribution. This regulation is available only in electronic format.

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Glossary

1. PURPOSE

This regulation--

- a. Establishes USAREUR policy on storing and handling ammunition and explosives.
- b. Will be used with AR 385-64 and DA Pamphlet 385-64.

2. REFERENCES

Appendix A lists references.

3. EXPLANATION OF ABBREVIATIONS AND TERMS

- a. **Abbreviations.** The electronic glossary defines abbreviations.
- b. **Terms.** The glossary in this regulation defines terms.

4. RESPONSIBILITIES

- a. The Office of the Deputy Chief of Staff, Personnel (ODCSPER), HQ USAREUR/7A, will--
 - (1) Establish USAREUR explosives-safety policy.
 - (2) Review and forward site plans and requests for explosives-safety exemptions and waivers to the appropriate approval authorities.
 - (3) Coordinate with the host nation, HQDA, NATO, USEUCOM, USAFE, HQ USAREUR/7A staff offices, and non-USAREUR organizations, as appropriate, on explosives-safety matters.
 - (4) Chair the U.S.-German Ammunition Technical Working Group.
 - (5) Provide input to the Deputy Chief of Staff, Operations (DCSOPS), USAREUR; the Deputy Chief of Staff, Logistics (DCSLOG), USAREUR; and the Deputy Chief of Staff, Engineer (DCSENGR), USAREUR, on explosives safety, including contingency planning.

- (6) Provide technical guidance and support to deployed elements.
 - (7) Serve as the U.S. representative to the NATO Joint Ammunition Technical Working Group.
 - (8) Serve as the USAREUR representative to the Department of the Army Explosives Safety Council (DAESC).
 - (9) Serve as the recorder for, and alternate chairperson of, the USAREUR Explosives Process Action Committee (PAC) (para 17).
- b. The Office of the Deputy Chief of Staff, Operations (ODCSOPS), HQ USAREUR/7A, will--
- (1) Determine when to deploy uploaded vehicles for contingency operations (CONOPS).
 - (2) Prescribe ammunition basic load (ABL) requirements.
 - (3) Provide requirements and priorities for ammunition stock and issue.
 - (4) Provide guidance for storing ABL outside the USAREUR area of responsibility (AOR) as required by contingency plans (CONPLANs).
- c. The Office of the Deputy Chief of Staff, Logistics (ODCSLOG), HQ USAREUR/7A, will--
- (1) Establish USAREUR policy and logistic-support concepts, plans, and programs for ammunition services.
 - (2) Develop the USAREUR Quality Assurance Ammunition Surveillance Program.
 - (3) Coordinate ammunition-protective standards and policy with Deputy Chief of Staff, Personnel (DCSPER), USAREUR.
 - (4) Provide storage requirements for ammunition and explosives outside the USAREUR AOR as required by ODCSOPS CONPLANs.
 - (5) Coordinate and chair the USAREUR Explosives Safety PAC.
- d. The Office of the Deputy Chief of Staff, Engineer (ODCSENGR), HQ USAREUR/7A, will--
- (1) Coordinate the establishment and maintenance of restricted areas (para 13) with the host nation according to UR 210-60.
 - (2) Review and certify lightning-protection systems (LPSs) (para 8).
 - (3) Ensure the directorate of public works (DPW) maintains explosives-storage facilities and controls surrounding vegetation.
 - (4) Verify Department of Defense Explosives Safety Board (DDESB) approval of construction projects that are on ammunition-storage sites or affected by ammunition storage.
 - (5) Provide fire-protection support for ammunition-storage facilities according to AR 420-90.
- e. Commanders of USAREUR commands (UR 10-5, app A) will--
- (1) Help subordinate-unit commanders perform risk assessments of facilities with ammunition and explosives as required by DA Pamphlet 385-64, chapter 2.
 - (2) Include explosives-safety considerations in applicable operation plans (OPLANs), operation orders (OPORDs), training activities, and functions.

(3) Review, coordinate, and forward explosives-safety-site plans submitted by subordinate commanders to HQ USAREUR/7A, ATTN: AEAGA-S, Unit 29351, APO AE 09014, for processing.

(4) Coordinate with the appropriate area support group (ASG) safety office on explosives-safety matters that affect ASG personnel and property.

(5) Coordinate with the appropriate safety office and conduct annual explosives-safety surveys of all ammunition-storage and operational sites in their AOR.

(6) Review, coordinate with the appropriate safety office, and certify an ammunition-storage license for each site operated. Provide copies of storage licenses, annual reviews, and any changes to the license to HQ USAREUR/7A, ATTN: AEAGA-S, Unit 29351, APO AE 09014.

(7) Enforce explosives-storage licenses to ensure exposed sites are protected. Report discrepancies to the commander responsible for the site.

(8) Ensure safety offices take part with the DPW and the appropriate host-nation agency in maintaining and inspecting restricted areas.

(9) Report and investigate explosives accidents involving personnel, equipment, or facilities (AR 385-40). Malfunctions will be reported according to AR 75-1 and UR 75-1.

(10) Review and recommend action on explosives-safety-waiver and exemption requests submitted by subordinate commanders. Forward requests to HQ USAREUR/7A, ATTN: AEAGA-S, Unit 29351, APO AE 09014.

f. ASG and base support battalion (BSB) commanders will--

(1) Ensure that local DPW and safety-office personnel take active part in the annual USAREUR explosives-safety survey to address facility issues.

(2) Approve or disapprove, as appropriate, storing ammunition in inhabited buildings (arms rooms) and near inhabited areas according to paragraph 7.

(3) Ensure that safety offices inspect all unit arms rooms in their AOR each year.

(4) Ensure that LPSs are tested, repaired, and maintained according to DA Pamphlet 385-64, chapter 12.

(5) With the support from the DPW, control vegetation at all licensed storage sites in their AOR.

(6) Maintain consolidated engineering plans showing restricted areas according to UR 210-60.

(7) Establish and control effective amnesty programs for all activities in their AOR (para 15).

(8) Provide DPW support to commanders in their AOR for waiver and exemption requests and explosives-safety-site submissions.

(9) Ensure that qualified personnel are designated to inspect and monitor amnesty-collection points in their AOR.

(10) Ensure that DPW and safety-office personnel take active part in maintaining and inspecting restricted areas.

5. POLICY

Commanders will--

a. Integrate explosives- and ammunition-safety considerations into concepts, plans, procedures, equipment, and facilities to prevent unnecessary risk and to preserve mission resources.

b. Implement risk-management methods at the lowest levels and determine the safest course of action in activities involving ammunition and explosives while considering all factors and potential hazards.

c. Limit the exposure of explosive material to the fewest people, for the shortest amount of time, and to the least amount consistent with safe and efficient operations.

6. WAIVERS AND EXEMPTIONS

The goal of the USAREUR Explosives Safety Program is to eliminate all waivers and exemptions and ensure strict adherence to applicable explosives-safety standards.

a. Waivers. Waivers issued according to this regulation apply only to explosives-safety criteria and do not waive safety requirements on ammunition and explosives transportation, security, control, or accountability. Commanders of USAREUR commands will review waivers annually to ensure the control measures are still relevant and applicable.

b. Exemptions. Commanders of USAREUR commands will review exemptions annually for compliance, applicability, and currency.

c. Approval Authority.

(1) Before waiver-approval authority for an activity can be determined, a qualified explosives-safety expert must complete a risk assessment to determine the hazards, identify exposures, and specify compensatory safety measures. The risk assessment also will be used to determine the risk level.

(a) Appendix B provides procedures for making a risk assessment using a severity chart and a probability-determination chart. The severity chart will be used to determine the severity level. The probability-determination chart will be used to determine the probability of an accident occurring.

(b) The information from the severity and probability-determination charts will be used with the USAREUR Decision-Authority Matrix (app B, fig B-3) to determine the risk level and the appropriate waiver-approval authority.

(2) Commanders who approve a waiver will send a copy of the waiver to HQ USAREUR/7A, ATTN: AEAGA-S, Unit 29351, APO AE 09014.

(3) Only the CG, USAREUR/7A, may approve exemptions and extremely high-risk waivers (AR 385-64).

d. Requests for Waivers and Exemptions.

(1) Request Determination. The determination to request a waiver to or exemption from explosives-safety standards must be based on a complete analysis of the mission, explosives requirements, and facilities.

(a) Site plans for ammunition- or explosives-storage facilities will be submitted with the waiver request according to paragraph 9.

(b) Waivers to support planned operations will be incorporated into OPORDs and OPLANs as part of the commander's risk-assessment process. These waivers will be activated when the operation is implemented or activated. The need for the waiver will be reviewed for relevancy each time the plan is reviewed.

(2) Required Information. Each request for a waiver or an exemption will include the information required by AR 385-64, paragraph 7-4. A completed DA Form 7319-R (Explosive Waiver/Exemption Request) will be forwarded with each request.

(3) Submission Procedures.

(a) Requests for waivers to, or exemptions from, explosives-safety standards will be submitted through command channels to HQ USAREUR/7A (AEAGA-S).

(b) The activity requiring the waiver or exemption will initiate the request. The safety office for the activity will help prepare the request and provide the activity commander a risk assessment and safety support. The request will be coordinated with host-nation and tenant activities exposed to hazards or at risk.

(c) Each level of command (battalion, brigade, division, USAREUR command, HQ USAREUR/7A) will staff the request with the appropriate offices, including safety offices, for review and concurrence before the request is submitted to the commander for approval and signature. Appropriate staff offices are responsible for providing or reviewing information on operational necessity, correction costs, project scheduling, and risk acceptance.

(d) The commander at each level must approve the request. The commander's approval and signature confirms that the compelling need for the waiver or exemption is valid, that alternate means of meeting explosives-safety standards have been explored and were determined to be unrealistic, and that appropriate compensating factors are being applied. If approved, the request will be forwarded through the chain of command to the final approval authority.

(e) The appropriate staff office will make any required host-nation coordination during the final review of the request.

e. USAREUR-Directed Operations. USAREUR-directed operations (CONPLANs, OPLANs, OPORDs, directives, taskers) involving explosives will be coordinated with appropriate HQ USAREUR/7A staff offices.

(1) HQ USAREUR/7A staff offices or subordinate commands are responsible for requesting waivers and exemptions for deviations from U.S. explosive standards or host-nation laws and regulations. Safety offices will help prepare requests.

(2) Commanders will forward completed packages through command channels with their recommendation. At each review level, the commander will review and staff the request.

f. Review of Waivers and Exemptions.

(1) USAREUR commands will conduct an annual review of all waivers and exemptions. A copy of the review will be provided through channels to the Safety Division, ODCSPER.

(2) The Safety Division, ODCSPER, will notify waiver-holders 90 days before their waivers expire.

g. Cancellation, Expiration, and Renewal.

(1) The Safety Division, ODCSPER, will--

(a) Be advised and the waiver or exemption will be canceled when corrective action has been completed before the waiver- or exemption-expiration date.

(b) Immediately cancel or suspend any waiver or exemption not in compliance with the original conditions of approval.

(2) Waivers and exemptions--

(a) Expire at midnight of the expiration date specified in the waiver or exemption correspondence.

(b) Generally are not renewable. The initiating activity must submit a new request if the condition is not corrected by the waiver- or exemption-expiration date.

7. STORING AMMUNITION IN OR NEAR INHABITED BUILDINGS

DA Pamphlet 385-64 discourages but allows the storage of limited amounts of hazard division (HD) (04)1.2, HD 1.3, and HD 1.4 in arms rooms, hangers, and operations buildings without regard to explosives quantity-distance (QD) requirements (DA Pam 385-64) if operational necessity (glossary) requires this storage.

NOTE: The qualifier “operational necessity” is intended to provide commanders the flexibility to meet their mission and training requirements without wasting resources. It is not intended to permit the storage of ammunition in or near inhabited buildings for convenience.

a. Ammunition Storage. Storage areas in ammunition-holding areas (AHAs) and at ammunition-supply points (ASPs) will be used to store ammunition unless this use would adversely affect operations or require an unusual commitment of resources (for example, require unit personnel to provide 24-hour security). Locations that have facilities authorized for storing ammunition or explosives are considered ammunition-storage facilities.

b. Risk Assessments. Before storing ammunition in an arms room, units will conduct a risk assessment (app C) on the potential storage site to justify the storage based on operational necessity and safety considerations. The ASG or BSB commander, as appropriate, will approve and sign the risk assessment.

(1) When approving the assessment, the commander will consider the need to expose the fewest people to the least amount of explosives for the shortest time possible.

(2) The risk assessment will be coordinated with ASG and BSB safety, logistics, security, fire-protection, and ammunition-surveillance personnel.

(3) The local safety office will keep the risk assessment. A copy of the risk assessment will be posted in the arms room and all arms-room personnel will be briefed on its contents at least once a year.

(4) The commander will ensure that--

(a) The facility used to store ammunition is properly licensed. The arms-room ammunition-storage license (app C, fig C-2) will specify the location approved for storage, the quantity of ammunition by Department of Defense identification code (DODIC) approved for storage, time restrictions on storage, and safety, security, and fire-protection requirements. The license must be signed by the ASG or BSB safety manager, as appropriate.

(b) Explosives and ammunition are stored in their original container with original packaging. Arms rooms that support guard forces or military police may have one outer pack of each caliber of small-arms ammunition (SAA) open for use.

(c) Munitions are stored according to storage-compatibility requirements.

(d) Storage is consistent with the safety requirements of DOD 6055.9-STD and the security requirements of AR 385-10. Metal storage containers or cabinets will be used. Ammunition will be stored under the same criteria as it would be in an approved ammunition-storage facility (for example, no combustibles, solvents, petroleum products, or radioactive items near the ammunition).

(e) The appropriate fire and chemical-hazard symbols are properly posted.

c. Time Limits. If storing training ammunition in an AHA or ASP would adversely affect operations or require an unusual commitment of resources (for example, the storage would require unit personnel to provide 24-hour security) and storage in an arms room is necessary, the following time limits apply:

(1) Units more than 50 kilometers from an approved ammunition-storage facility (for example, an ASP or AHA) may, when required and under the conditions in b(4)(a) through (e) above, store limited quantities (for example, that required to support their immediate training needs) of HD (04)1.2, HD 1.3, and HD 1.4 munitions in an arms room. This ammunition may be kept for up to 7 days each training period.

(2) Units within 50 kilometers of an approved ammunition-storage facility may, when required and under the conditions in b(4)(a) through (e) above, store limited amounts (for example, that required to support their immediate training needs) of HD 1.4 munitions in an arms room. This ammunition may be kept overnight and, when absolutely necessary, over a weekend, but not for more than 72 hours.

d. Fire Protection. Fire protection for ammunition in inhabited buildings will be as follows:

(1) Appropriate fire and chemical-hazards symbols will be posted at each storage site. Procedures will be established to ensure that the fire symbol shows the highest HD of ammunition stored and that chemical-hazard symbols are displayed if required. These symbols must be removed or covered when no ammunition is present. Fire symbols will be placed according to the requirements of the servicing fire department.

(2) At least two class-10BC fire extinguishers will be available for immediate use when ammunition or explosives are being handled. Each fire extinguisher will be--

(a) Placed in a conspicuous and readily accessible location.

(b) Kept in a fully charged, operable condition.

(3) Flammable items (for example, solvents; rags; petroleum, oils, and lubricants (POL)) will not be stored near ammunition. Small quantities of flammable or combustible liquids necessary for weapons maintenance and cleaning may be stored in approved storage containers placed at the maximum distance possible from the ammunition.

e. Ceremonial Ammunition. Storage of ceremonial ammunition is not considered an operational necessity. However, a limited quantity of HD 1.3 ceremonial ammunition (for example, 75 millimeter (mm) blank, 105 mm blank) may be stored in an arms room if no other practical storage alternative exists. The amount of HD 1.3 stored will not be more than 45 kilograms net explosives quantity (NEQ) or one full outer pack of ammunition, whichever is less.

f. Aviation-Unit Ammunition-Unique Material.

(1) Cartridge actuated devices (CADs) and propellant actuated devices (PADs) are ammunition items used only for aircraft or helicopters. CADs and PADs used in aircraft-escape systems and emergency-life-support systems must work perfectly the first time. Because CADs and PADs must be replaced periodically, controls are necessary to ensure that--

(a) They are not misplaced.

(b) Lot numbers are not lost.

(c) Items that are not installed are inventoried each month and unserviceable items are disposed of in a timely manner.

(2) Technical Manual (TM) 9-1377-200-20 provides procedures for the safe handling, receipt, issue, installation, storage, shipment, and maintenance of CADs and PADs, and repackaging of expired items.

(3) When stored in inhabited buildings, CADs and PADs will be stored according to this paragraph and TM 9-1377-200-20.

8. LIGHTNING PROTECTION

a. General. An LPS is required on all structures and in areas containing ammunition or explosives except for the exceptions described in DA Pamphlet 385-64.

(1) Facilities Built Before 4 June 1991.

(a) Magazines and ammunition-operations buildings built before 4 June 1991 that met host-nation LPS standards when they were built provide adequate protection against lightning. During maintenance, these facilities will not be modified to meet construction requirements of new LPSs; they will be returned to their "as-built" condition. If extensive LPS repair is needed because of system degradation, the LPS will be renovated according to DA Pamphlet 385-64, paragraph 12-5f.

(b) If the adequacy of a host-nation-installed LPS is questionable, the using-unit commander will request that the ODCSENGR certify the safety of the LPS. Certification requests will be sent to the ODCSENGR (AEAEN-EH-U). A copy of the cover memorandum will be sent to the ODCSPER (AEAGA-S). When the technical review is complete, the

ODCSPER (AEAGA-S) will provide either a memorandum certifying the LPS as serviceable or a list of corrective measures that must be taken before the LPS may be certified. Certification requests will include--

1. A cover memorandum requesting facility certification.
2. Copies of the “as-built” drawing showing LPS details.
3. The results of the most-recent visual inspection and electrical test made according to this regulation.

(2) Facilities Built After 4 June 1991.

(a) New construction or major renovation of LPSs of facilities built after 4 June 1991 will be according to DA Pamphlet 385-64, paragraph 12-5f.

(b) LPSs designed to protect structures or areas containing explosives and ammunition must provide a 100-foot protection zone (DA Pam 385-64, app H).

b. Electrical Tests and Inspections of LPSs.

(1) Electrical Tests.

(a) LPSs will be tested according to this regulation. The supporting DPW usually will test LPS systems. At the commander’s discretion, host-nation engineers or contractors may test LPS systems. A quality assurance specialist (ammunition surveillance) (QASAS) will verify the adequacy of tests performed.

(b) When new ammunition- or explosives-storage facilities are built, the LPS will be tested and certified as meeting USAREUR and host-nation requirements. USAREUR-command safety offices and battalion- and company-level organizations responsible for the site will permanently keep copies of initial test results.

(c) LPS and bonding-system components will be tested electrically every 24 months and after any repair.

1. The maximum resistance permitted from the earth rod to earth for the LPS is 25 ohms. Facility LPSs installed with a counterpoise system may exceed 25 ohms.

2. The tester will perform continuity tests between the point of each air terminal and the earth-rod-testing point. The total resistance may not exceed 1 ohm.

3. The tester will perform continuity tests to verify the adequacy of the bonding system. The maximum resistance permitted for the bonding system is 1 ohm.

4. DA Pamphlet 385-64, table 6-1, provides visual and electrical-testing requirements of LPS components.

(2) Inspections.

(a) USAREUR-command safety offices will review LPS records to verify that inspections and testing required by the DPW have been completed. This process will be part of the explosives-safety-licensing and site review each year. Records will be maintained for 30 years.

(b) The supporting QASAS will make a visual inspection of accessible LPS components during semiannual facility inspections according to Supply Bulletin 742-1. The inspection will include air terminals, down conductors, connections and joints in the LPS, bonding-system components, and connections. A written report will document deficiencies and corrective actions to be taken.

c. Records.

(1) As a minimum, records for LPS tests will document ohm readings from each earth rod to earth and will describe results of continuity tests. Deficiencies found during inspections or tests and corrective actions taken will be included in the report.

(2) The tester will provide inspection results to the using-unit commander responsible for the site, the supporting QASAS, and the USAREUR-command safety officer. These organizations will include the results in lightning-protection files for the site.

d. Commander Responsibilities. Unit commanders will--

(1) Develop standing operating procedures (SOPs) or incorporate requirements into existing unit SOPs to implement LPS requirements.

(2) Ensure LPSs are inspected and tested according to local procedures.

(3) Ensure inspection and testing records are kept on file and are available for review, and maintain current LPS-inspection reports.

(4) Submit workorders or maintenance requests to the appropriate DPW or host-nation authority to correct LPS deficiencies, and track repairs to completion.

(5) Report LPS deficiencies that are not repaired by the supporting DPW, the contractor, or the host nation within 180 days after submitting a workorder or request. Deficiencies will be reported through the chain of command to the ODCSENGR (AEAEN-EH-FE).

9. SITE- AND GENERAL-CONSTRUCTION-PLAN SUBMISSION

Before an ammunition- or explosives-storage facility is built, the site and general construction plan must be reviewed to ensure appropriate steps are taken to protect personnel, facilities, and the unit mission. A strong review-and-approval program can ensure that standard violations are not built into projects and that the proposed project meets all DOD, DA, and host-nation ammunition- and explosives-safety standards.

a. The requesting activity will prepare and submit a site- and general-construction-plan package that provides specific information on the proposed project and the surrounding area. Packages will be--

(1) Prepared according to AR 385-64, paragraph 6-2, and DA Pamphlet 385-64, chapter 8.

(2) Submitted through command engineering and safety channels to the Safety Division, ODCSPER.

b. The Safety Division will review and submit proposed projects through the United States Army Technical Center for Explosives Safety to the DDESB for approval.

10. CONTINGENCY OPERATIONS (CONOPS)

The DCSOPS will determine when combat vehicles will be placed in uploaded configuration based on mission and safety requirements. CONOPS directives will state which vehicles will be uploaded, the type and amount of ammunition to be loaded, and the upload location.

a. If a mission requires that risks to personnel, equipment, ammunition, and the host nation must be accepted, force-protection and risk-management factors will be integrated into deployment requirements at holding and staging areas in garrison and at railheads, airfields, and ports.

b. QD separations ensure that the loss of a single element does not catastrophically affect the entire mission. Proper QD should be maintained during the upload, download, shipping, and deployment to protect critical mission resources. QD separations will be used between heavy-armored vehicles, light-armored vehicles, and nonarmored targets according to DA Pamphlet 385-64, chapter 14, and the following:

(1) Heavy-Armored Vehicles. Magazine distance does not apply to heavy-armored vehicles. Heavy-armored vehicles require no separation from other heavy-armored, light-armored, or nonarmored targets except for 2 meters for maneuverability. Vehicle hatches must be closed. Heavy-armored vehicles include--

(a) M1 tanks.

(b) M60A1 and M60A3 tanks.

(2) Light-Armored Vehicles. Light-armored vehicles are not considered barricaded, but provide some protection against external explosions. Light-armored vehicles require no separation from heavy-armored vehicles except for 2 meters for maneuverability. The D6 distances of DA Pamphlet 385-64, table 14-1, apply to inhabited buildings and public-traffic routes. Vehicle hatches and ramps must be closed. Light-armored vehicles include--

(a) M2/M3, Bradley fighting vehicles.

(b) M106, 4.2-inch mortar carriers.

(c) M109, 155 mm howitzers (all variants).

(d) M113, armored personnel carriers.

(3) Nonarmored Targets. Nonarmored targets are not expected to contain the blast or fragments of the munitions carried. Barricades may be constructed between nonarmored vehicles and sites or between nonarmored targets and light-armored vehicles to reduce the distance required. Nonarmored targets include--

(a) M977, truck, cargo, 10-ton, 8x8, heavy expanded mobility tactical trucks (HEMTTs).

(b) M270, Multiple-Launch Rocket System launch vehicles.

(c) Military-owned demountable containers (MILVANS) and commercial transport containers.

(d) Open-storage pads.

(e) Unbarricaded structures.

d. After a decision is made to upload vehicles, a risk assessment will be conducted at battalion level. The commander, in coordination with the division or USAREUR-command safety office, will identify the locations and method of uploading. Locations selected for uploading and staging vehicles will be according to DA Pamphlet 385-64, chapter 14.

e. CONOPS plans must be developed and reviewed regularly. Operational elements must work with CONOPS planners to identify ammunition logistic considerations needed to support missions. Operations that require a temporary deviation from ammunition or explosives standards for strategic or other substantial reasons will be included in the plan before implementation to allow--

(1) Planners to incorporate compensating factors into the plan to compensate for the additional risk.

(2) The unit receiving the mission to react immediately and not be delayed by having to obtain a waiver.

11. ANNUAL ON-SITE EXPLOSIVES-SAFETY SURVEYS

a. A least once each year USAREUR-command safety offices will conduct on-site explosives-safety surveys of every ammunition-storage or operations facility licensed according to paragraph 12. The USAREUR-command safety office will certify the license.

b. The survey will verify the following:

(1) Compliance with the licensed allowable limits.

(2) Compliance with explosives-storage compatibility, unless storage is governed by the 4000 kilograms NEQ-mixed compatibility rule (DA Pam 385-64, para 4-4).

(3) Compliance with the fire-prevention requirements of paragraph 19, including vegetation control.

(4) Adequacy of LPSs and compliance with the inspection and testing requirements of paragraph 8.

(5) Compliance with earth-cover requirements.

(6) Compliance with safe-storage practices.

(7) Compliance with restricted-area decrees (RADs) (para 13) and the absence of obvious signs of encroachment.

(8) Compliance with the training requirements of DA Pamphlet 385-64, paragraph 2-2.

c. A knowledgeable person from each storing unit must be present during the survey and have the keys to each potential explosive site and a list of stored ammunition by Department of Defense Ammunition Code (DODAC), quantity, HD, and total NEQ.

d. Surveys will be coordinated with the safety office of the ASG in which the site is located.

e. A detailed report of the survey will be given to the commander of the facility, the commander of the ASG in which the facility is located, the servicing QASAS, each unit storing ammunition at the site, and the Safety Division, ODCSPER.

12. EXPLOSIVES-STORAGE LICENSE

a. Licensing explosives-storage locations is based on explosives QD. The QD standards of DA Pamphlet 385-64 and NATO Document AC/258-D/258 (as adopted by the host nation) form the basis for explosives licensing. Facilities that do not meet these standards will not be licensed unless they have a waiver or exemption approved according to paragraph 6.

b. All permanently designated ammunition-storage and operations facilities in USAREUR will be licensed.

c. The license will include the exact location of the facility, the type of facility, the allowable limits for each HD, the determining object or factor that limits the ammunition quantity, and the separation distance between the facility and the determining object or factor.

d. Arms rooms will be licensed according to paragraph 8. Appendix D provides a recommended seven-column, explosives-storage license that incorporates the requirements of DA Pamphlet 385-64 and NATO Document AC/258-D/258.

e. The license is a permanent document with no expiration date and will be revised or canceled under any of the following circumstances:

(1) Encroachment changes the determining factor.

(2) Changes in QD standards require recalculation.

(3) The host nation changes the RAD.

(4) The storage site is no longer required.

f. Before certification, the license will be formally coordinated with the safety office of the ASG in which the storage site is located. After certification, a copy will be given to the Safety Division, ODCSPER.

g. Each license will be reviewed annually during an on-site explosives-safety survey conducted by the USAREUR-command safety office certifying the license. The on-site survey will be coordinated and conducted according to paragraph 11. A copy of the review memorandum will be maintained with the storage license.

13. RESTRICTED-AREA DECREES

- a. RADs establish safety zones or restricted areas around U.S. ammunition sites in Germany where QD arcs extend beyond U.S.-controlled real estate. The RAD limits the use of the land in the restricted area and provides the same safety protective function as a perimeter fence.
- b. Restricted areas that extend beyond an installation boundary will be established by applying the most restrictive distance according to U.S., NATO, or host-nation standards.
- c. Maps of ammunition facilities with RAD zones will include explosives-safety arcs with the appropriate color-coding as follows:
 - (1) Zone III (public-traffic route): blue.
 - (2) Zone IV (inhabited-building distance): red.
 - (3) Zone V (special protected objects): green.
- d. Restricted areas will be requested, maintained, and canceled according to UR 210-60.
- e. The German authorities are responsible for ensuring compliance with the terms of the RAD. However, encroachment discovered during routine or annual, on-site explosives-safety surveys will be documented and reported immediately to HQ USAREUR/7A (AEAEN-RE) according to UR 210-60, paragraph 14.
- f. The USAREUR-command safety office certifying the explosives-storage license is responsible for coordinating with the appropriate *Wehrbereichsverwaltung (WBV)* (German military district administration) for the annual German restricted-area inspection according to UR 210-60, paragraph 12.

14. HAZARD DIVISIONS, STORAGE-COMPATIBILITY GROUPS, AND NET EXPLOSIVES QUANTITY

- a. HDs indicate the character and predominant hazard of Army ammunition and explosive items.
 - (1) HDs are defined in DA Pamphlet 385-64, paragraph 4-1, and are listed for all Army ammunition items on the Joint Hazard Classification System (JHCS) list.
 - (2) NATO subdivides HD 1.2 and 1.3 ammunition. HD 1.2 is divided into HD 1.2A (up to 60 mm) and HD 1.2B (more than 60 mm). HD 1.3 is divided into HD 1.3A (propellant) and HD 1.3B (other than propellant).
 - (3) Articles that contain riot-control substances without explosive components, such as tear-gas pellets, are considered to be in HD 1.4 for storage purposes.
- b. Storage compatibility is used to determine which ammunition and explosives may be stored together without significantly increasing the probability or magnitude of an accident.
 - (1) Storage-compatibility groups (SCGs) are defined in DA Pamphlet 385-64, paragraph 4-5, and are listed for Army ammunition items on the JHCS list.
 - (2) USAREUR commands are authorized to mix SCGs (except for items in groups A, K, and L) in quantities not exceeding 1,000 pounds net-explosive weight for each storage site. Appendix E provides the USAREUR Storage-Compatibility Chart.
 - (3) Storage-compatibility requirements do not apply to unit ABL when stored according to DA Pamphlet 385-64, paragraph 4-4b.
 - (4) Compatibility of ammunition and explosives in the transportation mode will be according to UR 55-4.

c. In USAREUR and throughout NATO, the explosives weight of an item is expressed in kilograms and is referred to as the NEQ. The NEQ is the total weight of highly explosive material an item contains and a portion of other explosive material expressed in kilograms.

(1) NEQ limits are listed on all USAREUR explosives-storage licenses.

(2) The NEQ of an item may be less when the item is stored according to DA Pamphlet 385-64, paragraph 14-2d.

(3) The JHCS list provides the NEQ of Army ammunition items. If an ammunition item is not listed on the JHCS list, commanders may contact their servicing safety office or QASAS for help.

15. USAREUR AMNESTY PROGRAM

a. General. The USAREUR Amnesty Program is intended to ensure maximum recovery of ammunition and explosive items outside the normal supply system. Units will not use amnesty programs to turn in ammunition and explosives to avoid following normal turn-in procedures.

(1) The amnesty program must be conducted on a no-questions-asked basis to provide an opportunity for individuals to return items without fear of reprisal or prosecution.

(2) Amnesty programs in USAREUR will be according to DA Pamphlet 710-2-1, paragraph 11-19, and this regulation.

(3) Before establishing an amnesty program, the commander will seek legal advice from the servicing legal office.

b. Local Amnesty Programs. Commanders of organizations with elements that use ammunition and explosives will develop an amnesty program. The program may be conducted in conjunction with other local units or with the ASG program.

(1) All personnel will be briefed on amnesty policy and procedures before each training event or exercise that requires the use of ammunition or explosives. The briefing will include the location of the nearest amnesty-collection container or turn-in point and the telephone number of the unit responsible for the container or point. Personnel will be asked to notify the controlling unit when items have been deposited.

(2) The location of the nearest amnesty-collection container or turn-in point and the telephone number of the responsible organization will be provided to anyone wishing to turn in ammunition or explosives under the program.

(3) An amnesty day will be conducted at least once each quarter according to DA Pamphlet 710-2-1 to find abandoned or unauthorized ammunition and explosives.

(4) Ammunition and explosive residue generated during training exercises will not be turned in to ASPs under the amnesty program.

(5) The program will be monitored to ensure that it is not being used to avoid accountability or proper turn-in procedures. Appropriate records will be maintained for ammunition turned in for program evaluation.

c. Collection Points.

(1) Ammunition-collection points must be located in places where people are not prevented from using them.

(a) Permanent amnesty-collection containers will be placed at each ASP, ammunition storage area, major training area, and at least one in each ASG or BSB. ASG commanders will designate additional ammunition-collection points to ensure coverage in each geographic area.

(b) Unit commanders will establish amnesty-collection points at local training areas for all training events involving ammunition and explosives other than SAA.

(c) Other convenient sites for amnesty-collection points may include areas close to combat-vehicle parking, barracks, military police stations, and departure points.

NOTE: For safety reasons, containers in populated areas will be designed with an opening no larger than necessary to accept .50-caliber ammunition.

(2) An SOP that includes the location and design of the container, procedures for checking the container, and container maintenance must be approved in writing by the ASG safety office, ASG provost marshal office, and the servicing ammunition-surveillance office.

(3) The design of the container must prevent the manual extraction of items in the container and provide sandbag protection appropriate to the highest HD fire symbol of items that can reasonably be expected to be deposited.

(4) Containers will be available for amnesty items 24 hours a day. A telephone number for the controlling unit will be stenciled on or posted immediately next to the container with directions for reporting amnesty ammunition and explosives. Numbers for explosive ordnance disposal (EOD) personnel, the QASAS, and other responsible personnel should also be provided.

(5) Units responsible for controlling amnesty sites will establish irregular inspection intervals of at least once a week. SAA will be removed for delivery to the servicing ASP. If items other than SAA are found, EOD personnel, the QASAS, and other responsible personnel, as appropriate, will be consulted before moving the items. In most cases, on-site inspection by qualified personnel will be required to ensure that hazardous items are safe for movement.

d. SSA Support. The supply support activity (SSA) servicing the controlling unit will support the amnesty program and will maintain records of all amnesty items. Recorded data will include the date, DODIC or national stock number, quantity, and lot or serial number if known.

e. Unidentifiable Ammunition. All unidentifiable amnesty ammunition except for SAA HD 1.4 will be considered hazardous and will be moved only by supporting EOD.

(1) HD 1.4 ammunition recovered from an amnesty container may be temporarily stored in locked containers in arms rooms before delivery to an ASP. (No documentation will be required at the ASP.) Other HD items must be moved to a facility licensed according to paragraph 12 as soon as it is determined to be safe for movement (c(5) above).

(2) EOD units will store recovered amnesty items in a licensed facility and will turn in safe items to the ASP as soon as the workload permits, but within 3 duty days. If the EOD storage location is not licensed according to paragraph 13, the recovered amnesty items must be turned in to an ASP as soon as possible.

NOTE: Units are exempt from the 24-hour advance turn-in notification requirement to the ASP when turning in found-on-post or amnesty ammunition.

(3) Unsafe amnesty items will not be turned in to the ASP. These items must be rendered safe or destroyed by EOD personnel.

(4) Ammunition other than SAA found-on-post will be reported at once to the nearest EOD unit or servicing QASAS. Suspected explosives should not be picked up or disturbed.

(5) Explosives items found outside an installation must be reported to local authorities, host-nation military authorities, or the military police. EOD units will respond off-post only at the request of these authorities.

(6) Amnesty containers and EOD storage areas are temporary holding areas for amnesty ammunition while awaiting transportation to an ASP.

(7) Commanders will ensure properly trained personnel are available to evaluate the ammunition before it is moved. QASAS at supporting ammunition-surveillance offices can provide qualified individuals. Formal support agreements will be established with the nearest DOD installation having EOD capability to provide EOD support for the amnesty program.

f. ASPs. ASPs are the final destination for serviceable amnesty ammunition.

(1) ASPs will accept, without question or documentation, ammunition turned in under the provisions of the amnesty program. ASP storage personnel will respond in a prompt and timely manner to accept ammunition and explosives recovered by EOD personnel.

(2) Individuals turning in ammunition under the amnesty program are not required to provide turn-in documents and are exempt from the 24-hour advance turn-in notification requirement to the ASP.

16. MILITARY WORKING DOGS

a. DA Pamphlet 190-12 specifies the types and quantities of explosives authorized for training requirements and for use in training military working dogs. AR 190-12 and UR 190-12 provide program requirements.

b. Explosives-training aids must be transported and stored under the same requirements as other HD 1.1 explosive items. These aids may be transported only by qualified drivers in Government vehicles that have been certified as safe according to UR 55-4.

c. The determination to allow training rests with the BSB commander. In communities in which training is permitted, only buildings and facilities specifically approved by the BSB commander will be used.

d. The risk assessment for building selection must consider the following factors:

(1) The value of the training compared to the risk to exposed personnel, equipment, and facilities.

(2) The proximity of the building to host-nation exposures.

(3) The replacement value of the equipment and facilities that may be exposed to an explosion.

(4) The possibility of using troop training facilities or other uninhabited structures at a location away from the main post.

(5) The possibility of confining training to weekends or before and after duty hours.

17. USAREUR EXPLOSIVES PROCESS ACTION COMMITTEE (PAC)

a. Purpose. The USAREUR Explosives PAC provides a forum to discuss issues, search for solutions to explosives-safety problems, and develop policy for the USAREUR explosives community.

b. Mission. The USAREUR PAC--

(1) Develops USAREUR explosives safety policy.

(2) Provides policy recommendations to the DAESC, the DDESB, and NATO.

(3) Has primary review and approval authority for regulatory and policy guidance for USAREUR.

c. Responsibilities.

(1) The DCSLOG will chair of the USAREUR Explosives PAC.

(2) The Safety Division, ODCSPER, will provide administrative support, schedule committee meetings, identify agenda topics, prepare the agenda, address issues before the committee, and monitor the progress of USAREUR explosives-safety action items and report on their status. The Chief, Safety Division, will chair the USAREUR Explosives PAC when the DCSLOG is absent.

(3) A quorum is met when voting members are present from at least four of the member organizations. There will be a quorum for conducting business at regular (semiannual), emergency, short-notice, and special meetings. When a specific issue relates to a specific organization, that organization's participation is mandatory.

(4) When operations, logistics, or other considerations are important to explosives-safety issues before the committee, representatives from the appropriate staff office will be requested to provide essential information and advice. Other staff-section representatives will be invited to participate if the issues under review affect their staff sections. Invited guests will not have a vote in USAREUR Explosives PAC proceedings.

d. Organization.

(1) The USAREUR Explosives PAC will include the chairperson (DCSLOG) and voting members from designated organizations (table 1).

(2) Commanders of designated organizations will ensure that voting members are selected based on their explosives-safety mission and responsibilities.

Table 1 USAREUR Explosives PAC Members	
USAREUR	ODCSPER: Safety Division representative
	ODCSLOG: Chief, QASAS
	ODCSOPS: Current Operations Branch, Operations Division, representative
	ODCSENGR: Military Engineering and Topography Office representative
V Corps	Explosives safety representative
	G4 QASAS
21st Theater Support Command (Provisional)	Explosives safety representative
	QASAS
United States Army Southern European Task Force and 22d ASG	Explosives safety representative
	G4 QASAS
3d Corps Support Command	Safety manager
	QASAS
Seventh Army Training Command and 100th ASG	Safety manager
6th ASG	Safety manager
26th ASG	Safety manager
80th ASG	Safety manager
98th ASG	Safety manager
104th ASG	Safety manager

(3) Meetings will be held semiannually or on special request by a voting member or the chairperson.

(4) The chairperson will call for votes. Consensus will be used whenever possible. All decisions by the committee will be by majority vote. Changes to the charter require a 75-percent majority vote of the membership.

(5) Minutes will be prepared by the Safety Division, ODCSPER, signed by the chairperson after each meeting, and distributed to each member.

18. TRANSPORTATION

Explosives and other hazardous materials will be transported according to UR 55-4.

19. FIRE PREVENTION

- a. DA Pamphlet 385-64, chapter 3, addresses fire-prevention, protection, and suppression methods.
- b. Each unit responsible for an explosives-storage site or operations will develop prefire plans according to AR 420-90.
- c. Fire drills will be held within explosives areas at intervals of no longer than 6 months.
- d. At least two class-10BC fire extinguishers suitable for the hazard involved will be available for immediate use when explosives are being handled. Extinguishers do not need to be permanently located at the site. Each extinguisher will be placed in a conspicuous and readily accessible location. Each fire extinguisher will be kept in a full or fully charged, operable condition. DA Pamphlet 385-64, table 3-1, lists agents for fighting fires.
- e. Reciprocal agreements with host-nation fire departments should be executed consistent with the Status of Forces Agreement. Installation fire departments should contact host-nation fire departments and provide orientation visits at the site.
- f. Firefighting guidance symbols will be constructed according to DA Pam 385-64 and posted according to host-nation requirements if they differ from U.S. requirements.
- g. DA Pamphlet 385-64, paragraph 3-16, lists exceptions on posting fire symbols.

20. VEGETATION RESTRICTIONS

Vegetation cover of many kinds, including trees, shrubs, bushes, and grass, may be planted on magazine roofs. The local DPW will consult and work with the local *Forstmeister* (German forestry official) to choose vegetation expected to do well according to the climatic and soil conditions of the site.

- a. Planting on and near type 16, Stradley, and other igloo-type magazines (fig 1) must comply with the following criteria:

- (1) Within a radius of 2 meters of the front air terminal and a radius of 3 meters of the rear stack (area A), vegetation may not be more than 20 centimeters (cm) high.

- (2) On top of magazines and within 10 meters of magazine wall structures (area B), vegetation is restricted to that which will not damage magazine waterproofing. Shrubs and grass may be planted in area B. The diameter of trees in area B may not exceed 12 cm when measured at a height of 4.5 feet above the ground (diameter at breast height (DBH)). Trees with 8 to 12 cm DBH must be separated by at least 1 meter. Tree species that have extensive taproot systems will not be planted in area B.

- (3) A viewing lane (area C) for easy sighting of the rear ventilator from the road must be provided. The lane will be 1 meter wide and vegetation in the lane may not be more than 20 cm high.

NOTE: The arrangement of the viewing lane in figure 1 is an example. Local topography and the actual position of the flag on the ventilator may alter this plan.

- (4) Any type of tree or vegetation may be planted in area D.

- (5) Vegetation growing between the road and a parallel line formed by the bunker doors (area E) and between magazines will be restricted to 1 meter in height for security reasons.

- b. Planting on or near other types of earth-covered magazines (fig 2) must comply with the following criteria:

- (1) Within a radius of 2 meters of the front air terminal and a radius of 3 meters of the rear stack (area A), vegetation may not be more than 20 cm high.

- (2) On top of magazines and within 2 meters of bunker walls (area B), vegetation may not be more than 1 meter high. This requirement prohibits trees, but shrubs, bushes, and grass may be planted.

(3) A viewing lane (area C) for easy sighting of the rear ventilator flag from the road must be provided. The lane will be 1 meter wide and vegetation in the lane may not be more than 20 cm high.

NOTE: The arrangement of the viewing lane in figure 2 is an example. Local topography and the actual position of the flag on the ventilator may alter this plan.

(4) Any type of tree or vegetation may be planted in area D.

(5) Vegetation growing between the road and a parallel line formed by the bunker doors (area E) and between magazines will be restricted to 1 meter in height for security purposes.

c. Vegetation must be controlled around huts and other aboveground magazines (fig 3) according to the following criteria:

(1) A 10-meter firebreak will be maintained around huts, aboveground magazines, and open-storage areas (area A). No new trees will be planted in the firebreak. Many firebreaks in hut and open-storage-pad areas have become overgrown with trees and other vegetation. Current policy is to eliminate trees in the firebreak over time by cutting trees as they mature. Trees may be removed only after coordination with the *Forstmeister*. The *Forstmeister*, however, is not obligated to cut and clear firebreaks immediately on request.

(a) Unless local USAREUR fire-prevention officials approve the continued existence of the trees, the *Forstmeister* will cut trees in the firebreak with a DBH of 10 cm or less. If fire-prevention officials allow trees to remain in area A, the tree density will be no greater than that permitted by common forestry rules.

(b) Trees in the firebreak with a DBH of more than 10 cm will be removed when possible or be bare of limbs and branches from the base of the trunk up to a height of 2.5 meters.

(2) Branches closer than 3 meters horizontally and 2 meters above the hut roof or open-storage areas will be removed.

(3) Vegetation must not be more than 20 cm high within 2 meters of air terminals and 3 meters of ventilators (area B).

(4) Any vegetation may exist in area C.

(5) Vegetation growing between the road and a parallel line formed by the bunker doors (area D) and between magazines will be restricted to 1 meter in height for security purposes.

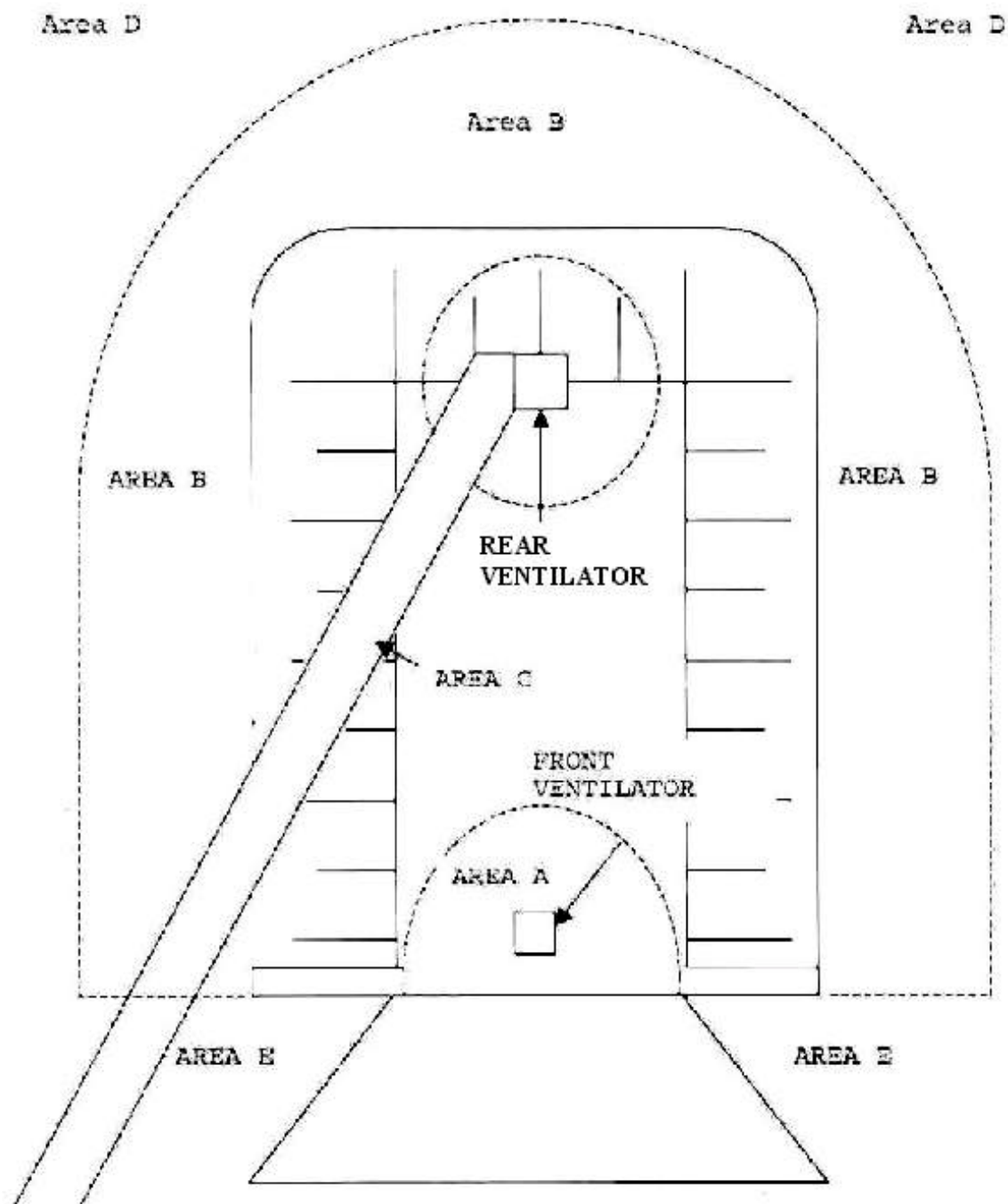


Figure 1. Type 16, Stradley, and Other Igloo-Type Magazines

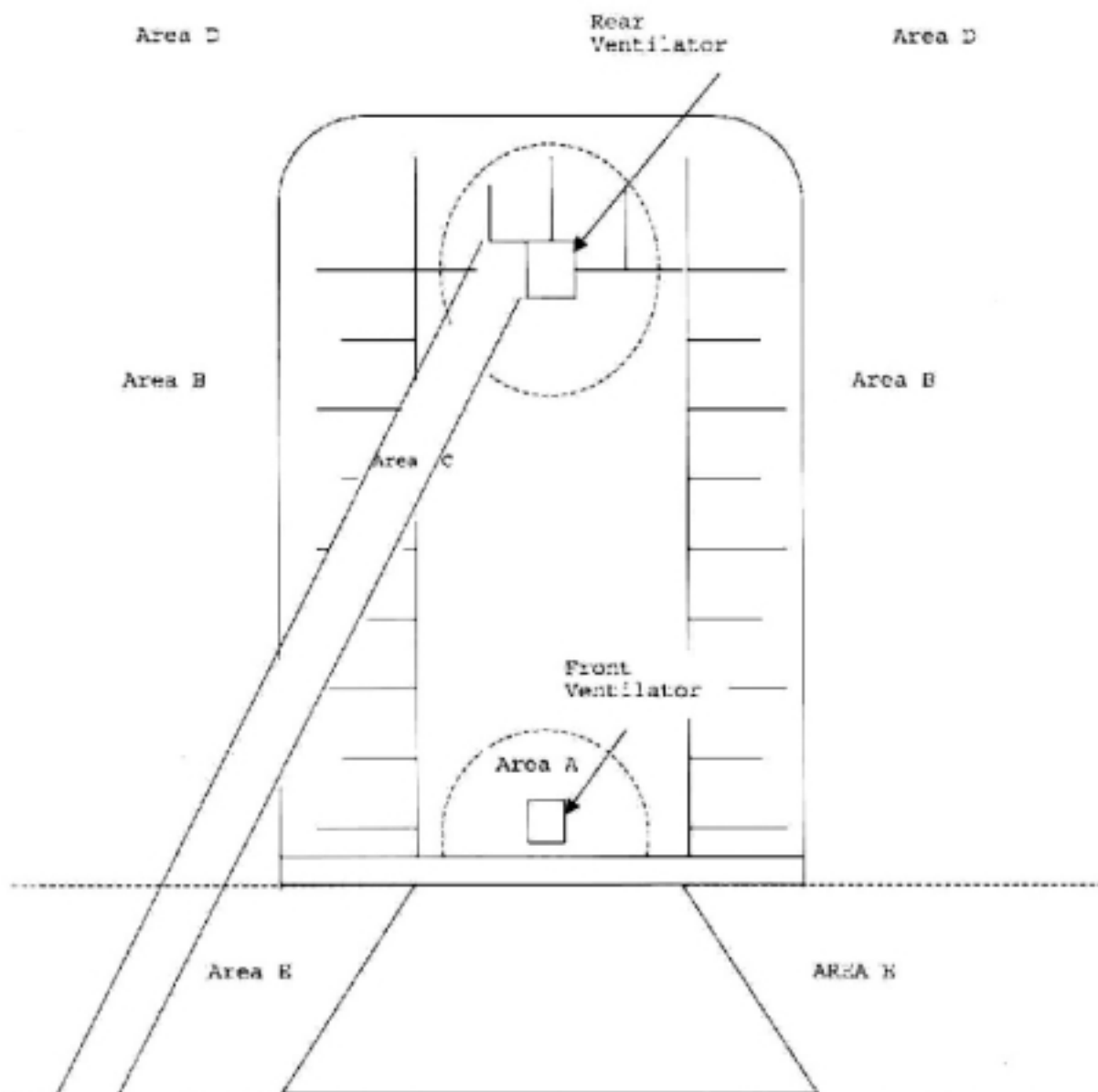


Figure 2. Other Types of Earth-Covered Magazines

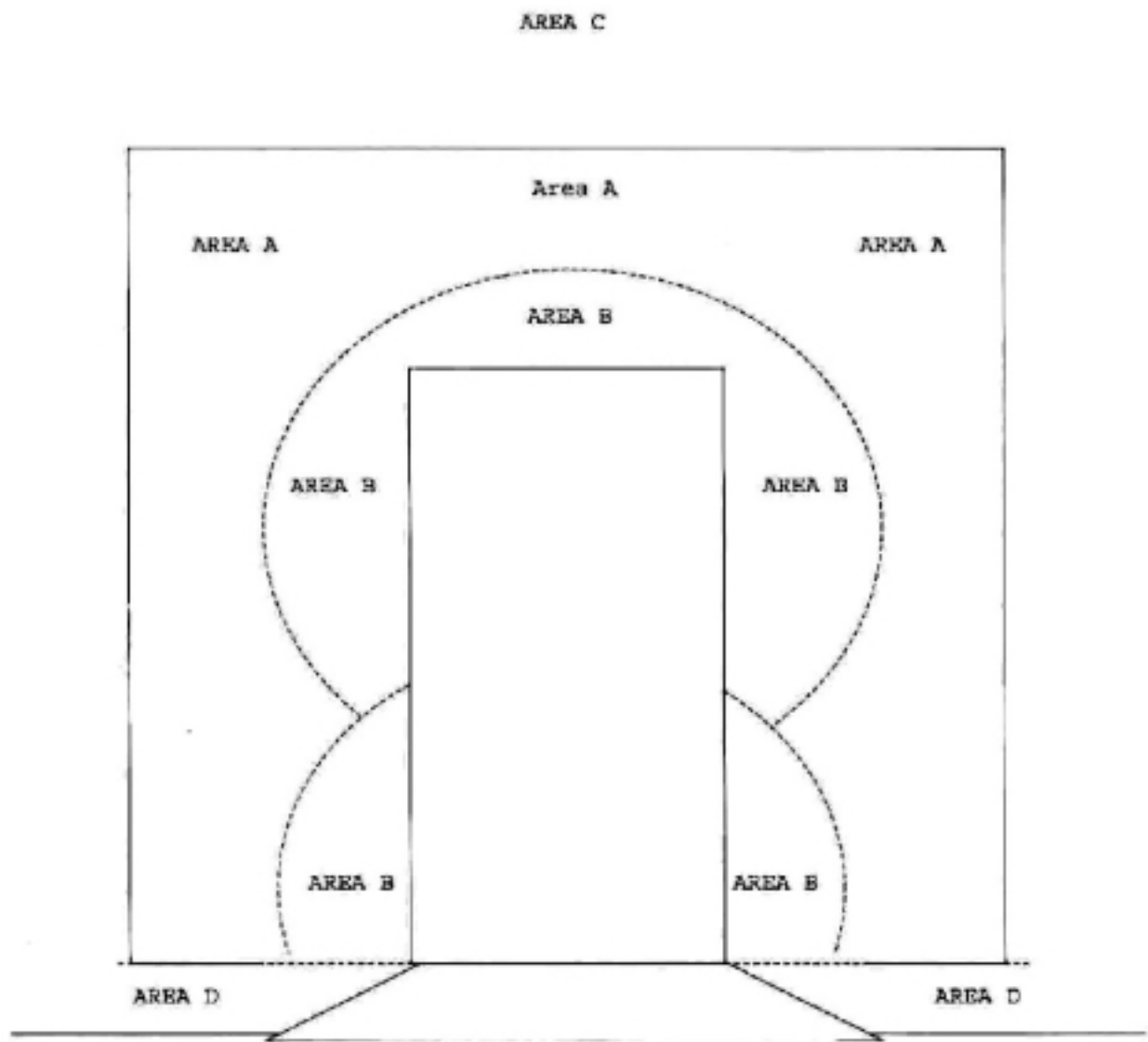


Figure 3. Huts, Aboveground Magazines, and Open Storage

APPENDIX A REFERENCES

DOD 6055.9-STD, DOD Ammunition and Explosives Safety Standards

AR 190-12, Military Police Working Dogs

AR 200-3, National Resources--Land, Forest, and Wildlife Management

AR 385-10, The Army Safety Program

AR 385-64, U.S. Army Explosives Safety Program

AR 420-70, Buildings and Structures

AR 420-90, Fire and Emergency Services

DA Pamphlet 385-64, Ammunition and Explosives Safety Standards

DA Pamphlet 710-2-1, Using Unit Supply System (Manual Procedures)

Technical Manual (TM) 9-1377-200-20, Unit Maintenance Manual for Cartridges, Cartridge Actuated Devices, and Propellant Actuated Devices

UR 190-13, The USAREUR Physical Security Program

UR 210-60, Establishing Exterior-Protective or Safety Zones (*Schutzbereiche*) in Germany

UR 742-2, USAREUR Ammunition Surveillance Program

APPENDIX B

PERFORMING RISK ASSESSMENTS AND DETERMINING DECISION AUTHORITIES

Below are procedures for conducting risk assessments on activities involving the use of explosives.

B-1. SEVERITY

a. Determine the severity of a possible explosion by computing the blast and fragmentation effects using the following formula:

$$D=KQ^{1/3}$$

D = Distance in meters

K = The severity factor used for each risk level assumed or permitted

Q = The net explosives quantity (NEQ) in kilograms

b. The formulas for each severity level are listed below each zone on the bottom of the severity chart (fig B-1).

NOTE: DA Pamphlet 385-64, paragraph 5-4, provides more information on using this formula.

B-2. PROBABILITY

To determine the probability of an explosion--

a. Select the type of activity from the left column of the probability-determination chart (fig B-2).

b. Choose the environment from the top of the probability-determination chart under which the activity will be performed.

c. Select the block where the two selections intersect.

B-3. RISK-LEVEL AND DECISION-AUTHORITY DETERMINATION

To determine the risk level--

a. Match the severity information (para B-1) with the appropriate severity section on the top of the USAREUR Decision-Authority Matrix (fig B-3).

b. Match the probability information (para B-2) with the appropriate probability section on the left side of the USAREUR Decision-Authority Matrix.

c. Select the block where the probability and severity intersect in the USAREUR Decision-Authority Matrix.

SEVERITY CHART

BLAST & FRAGMENTATION EFFECTS TO EXPOSED SITES/PERSONNEL



Figure B-1. Severity Chart

PROBABILITY-DETERMINATION CHART							
Activity Type	Activity Environment						
	Operations in a hostile area	Unserviceable items awaiting destruction	Initial tests of new systems	Outdoors in inclement weather	Exercises/ contingencies/ alerts	Flightlines	Missile systems
Assembly/disassembly/LAP/maintenance/renovation	L	NA	L	O	O	O	O
Demil/demolition/disposal	L	L	NA	O	O	NA	O
Training	L	NA	NA	S	S	S	S
Handling/loading	O	O	O	S	S	S	S
Transportation--break bulk	S	NA	NA	S	S	S	S
Transportation--containerized	U	NA	U	U	U	U	U
Inspection	U	NA	O	U	U	U	U
Storage	U	NA	U	U	U	U	U
Abbreviations: L=frequent/likely, O=occasional, S=seldom, U=unlikely, NA=not applicable							

Figure B-2. Probability-Determination Chart

USAREUR Decision-Authority Matrix Hazard Divisions 1.1 and 1.2					
	Severity $D = KQ^{1/3}$ (D=distance, K=severity factor, Q=NEQ in kilograms)				
	Catastrophic $D = 2.4Q^{1/3}$	Catastrophic $D = 4.4Q^{1/3}$	Critical $D = 7.2Q^{1/3}$	Marginal $D = 9.6Q^{1/3}$	Negligible $D = 20Q^{1/3}$
Probability					
Frequent/likely	Extremely high	Extremely high	Extremely high	High	Medium
Occasional	Extremely high	High	High	Medium	Low
Seldom	High	High	Medium	Low	Low
Unlikely	Medium	Medium	Low	Low	Low
DECISION AUTHORITY: a. The CG, USAREUR/7A, is the approval authority for extremely high-risk waivers and all exemptions. b. A general officer must approve high- and medium-risk waivers. c. Commanders of USAREUR commands (UR 10-5, app A) may approve low-risk waivers.					
NOTES: 1. Off-installation exposures will be coordinated with the host nation. 2. For exposures of military family housing or non-mission-related structures of public assembly such as schools, churches, and hospitals, the approval authority may not be delegated below general-officer level. 3. All waivers and exemptions will have a risk assessment. 4. DA Form 7319-R (Explosive Waiver/Exemption Request) will be completed for each waiver and exemption request.					

Figure B-3. USAREUR Decision-Authority Matrix

APPENDIX C

USAREUR ARMS-ROOM RISK ASSESSMENT AND ARMS-ROOM AMMUNITION-STORAGE LICENSE

Commanders may contact their local safety office for help in completing this risk assessment (fig C-1).

C-1. INSTRUCTIONS, PART I

- a. Circle the number at the intersection of the facility location being used and the hazard division (HD) of the ammunition being stored.
- b. Write the number in the block below and at the end of the risk assessment marked “Part I, Total Points_____.”

C-2. INSTRUCTIONS, PART II

- a. Read the statement and circle the appropriate number under the yes or no answer for that statement.
- b. Add the number of points for each section and enter the total in the “Total Points” location for that section.
- c. After each section is completed, add the totals for each section in part II and enter that total on the last page of the risk assessment marked “Part II, Total Points: _____.”

C-3. INSTRUCTIONS, PART III

- a. Add the total points from parts II and II.
- b. Determine the risk level using the values in the table and enter the level on the line provided.
- c. Sign the risk assessment.
- d. Have the ASG or BSB commander, as appropriate, sign the “commander’s authentication” line.

C-4. STORAGE AUTHORIZATION

- a. Commanders--

(1) May authorize the storage of ammunition in arms rooms with low- and medium-risk levels.

(2) Must have authorization from the next-higher level in the chain of command to store ammunition in arms rooms with high-risk levels.

- b. If an arms room has a risk level of over 30 points, ammunition will not be stored in the arms room until the risk level is reduced.

C-5 ARMS-ROOM AMMUNITION-STORAGE LICENSE

The ASG or BSB safety manager, as appropriate, will sign the arms-room ammunition-storage license (fig C-2).

PART I

HAZARD CLASSIFICATION OF AMMUNITION BEING STORED IN ARMS ROOM			
FACILITY LOCATION	Only HD 1.4	Only HD 1.3 and/or HD 1.4	HD (04)1.2 and/or HD 1.3 and/or HD 1.4
Barracks	3	15	25
Office	2	10	20
Stand-alone arms room	1	5	10

Total Points: _____

PART II

SAFETY MEASURES		
PREVENTION	YES	NO
If there are HD (04)1.2 items stored in the arms room, are they stored with fragmentation barriers according to DA Pamphlet 385-64.	0	20
If flammables are stored in the arms room, are they kept to a minimum and kept away from ammunition items.	0	10
Ammunition is kept in metal containers.	0	3
Ammunition is kept in original packing containers.	0	5
Ammunition has been inspected by the QASAS within the past 12 months.	0	3
The armorer has been briefed on proper fire and safety procedures within the past 12 months.	0	10
An up-to-date standing operating procedure is in-place and on-hand for the operation of the arms room.	0	5
Total Points:		
CONTINGENCY	YES	NO
Fire symbols are secured properly and placed according to requirements of servicing fire departments.	0	5
Fire extinguishers are properly placed.	0	10
Fire extinguishers are properly charged and up-to-date.	0	10
Total Points:		
PHYSICAL SECURITY	YES	NO
Physical Security concerns have been addressed.	0	5
Housekeeping is practiced (DA Pam 385-64).	0	3
Total Points:		

Total Points: _____

PART III

TOTAL POINTS	
Part I, Total Points	
Part II, Total Points	
Total Points:	

RISK-LEVEL DETERMINATION	
Points	Risk Level
0 to 10 points	low
11 to 20 points	medium
21 to 30 points	high

Risk Level: _____

Person conducting the risk assessment:

Name: _____

Position: _____

Signature: _____

Commander's authentication: _____

Figure C-1. Risk Assessment

ARMS-ROOM AMMUNITION-STORAGE LICENSE				
Location:				
Building and Room Number	Hazard Division	DODIC Number	Quantity Authorized	Criteria
	1.4			• HD 1.4 Ammunition Arms rooms supporting military-police guard forces may be used to store mission-essential ammunition but may have only one outer pack of ammunition open for use
	1.3			• HD 1.3 Ammunition Maximum amount authorized for storage is 45.5 kilogram or one full outer pack, whichever is less. A limited quantity of “ceremonial ammunition” may be stored in an arms room provided no other practical alternative exists. The total amount will not exceed the maximum authorized amount for HD 1.3.
	(04)1.2			• HD (04)1.2 Ammunition May only be stored when exceptional circumstances exist. Must use proper fragmentation shielding. Maximum amount authorized is 22.5-kilogram net explosives quantity. Under exceptional circumstances, ammunition that is required for immediate training needs may be kept overnight or over a weekend.
REMARKS: 1. This license is valid only with an approved risk assessment signed by the ASG or BSB commander. 2. Ammunition will be secured according to AR 190-11. Security has been coordinated with the security office. 3. Fire inspection will be conducted quarterly.				
APPROVING SAFETY MANAGER:				
DATE:				
TELEPHONE:				

Figure C-2. Arms-Room Ammunition-Storage License

APPENDIX D
EXPLOSIVES-STORAGE LICENSE

Figure D-1 is an example of an explosives-storage license that incorporates the requirements of DA Pamphlet 385-64 and NATO Document AC/258-D/258.

EXPLOSIVES-STORAGE LICENSE						
Potential Explosive Size	Hazard Division	Explosive Limits	DOD Fragment Distance	Exposed Site by Type	Separation Distance in Meters	
					Required	Actual
	1.4 1.3 1.2 1.1					
Remarks:						
Approving Official: _____ Date: _____ <div style="text-align: center;">Safety Manager</div>						

Figure D-1. Arms-Rook Explosives-Storage License

APPENDIX E

USAREUR STORAGE-COMPATIBILITY CHART

The USAREUR Storage-Compatibility Chart (fig E-1) will be followed when the command's mission requires mixed storage of different ammunition. Commanders may approve mixing of storage-compatibility groups, except items in groups A, K, and L, in quantities not exceeding 1,000 pounds net explosive weight per storage sites. DOD 6055.9-STD, chapter 3, explains storage-compatibility groups.

Group	A	B	C	D	E	F	G	H	J	K	L	N	S
A	X	Z											
B	Z	X	Z	Z	Z	Z	Z						X
C		Z	X	X	X	Z	Z					Z	X
D		Z	X	X	X	Z	Z					Z	X
E		Z	X	X	X	Z	Z					Z	X
F		Z	Z	Z	Z	X	Z						X
G		Z	Z	Z	Z	Z	X						X
H								X					X
J									X				X
K										Z			
L													
N			Z	Z	Z							X	X
S		X	X	X	X	X	X	X	X			X	X

NOTES:

1. The mark "X" at a chart intersection indicates that these groups may be combined in storage. The mark "Z" at an intersection is equivalent to "X" if ammunition items are packed in original or like original packaging containers.
2. Equal numbers of separately packaged components of complete rounds of any single type of ammunition may be stored together. When so stored, compatibility is that of the assembled round.
3. Articles of compatibility group N should not be stored with articles in other compatibility groups except S. However, if these articles are stored with articles of compatibility groups C, D, and E, the articles of compatibility group N should be considered as having the characteristics of compatibility group D.
4. Storage-compatibility requirements do not apply to unit ammunition basic load (ABL) ammunition stored according to DOD 6055.9-STD.

Figure E-1. USAREUR Storage-Compatibility Chart

GLOSSARY

ABBREVIATIONS

ABL	ammunition basic load
AHA	ammunition-holding area
AOR	area of responsibility
ASG	area support group
ASP	ammunition-supply point
BSB	base support battalion
CAD	cartridge actuated device
CG, USAREUR/7A	Commanding General, United States Army, Europe, and Seventh Army
cm	centimeter
CONOPS	contingency operations
CONPLAN	contingency plan
DAESC	Department of the Army Explosives Safety Council
DBH	diameter at breast height
DCSENGR	Deputy Chief of Staff, Engineer, USAREUR
DCSLOG	Deputy Chief of Staff, Logistics, USAREUR
DCSOPS	Deputy Chief of Staff, Operations, USAREUR
DCSPER	Deputy Chief of Staff, Personnel, USAREUR
DDESB	Department of Defense Explosives Safety Board
DODAC	Department of Defense Ammunition Code
DODIC	Department of Defense identification code
DPW	director of engineering and housing
EOD	explosive ordnance disposal
G4	assistant chief of staff, G4 (logistics)
HD	hazard division
HEMTT	heavy expanded mobility tactical truck
HQ USAREUR/7A	Headquarters, United States Army, Europe, and Seventh Army
HQDA	Headquarters, Department of the Army
JHCS	Joint Hazard Classification System
LAP	load, assemble, and pack
LPS	lightning-protection system
MILVAN	military-owned demountable container
mm	millimeter
NATO	North Atlantic Treaty Organization
NEQ	net explosives quantity
ODCSENGR	Office of the Deputy Chief of Staff, Engineer, HQ USAREUR/7A
ODCSLOG	Office of the Deputy Chief of Staff, Logistics, HQ USAREUR/7A
ODCSPER	Office of the Deputy Chief of Staff, Personnel, HQ USAREUR/7A
OPLAN	operation plan
OPORD	operation order
PAC	process action committee
PAD	propellant actuated devices
POL	petroleum, oils, and lubricants
QASAS	quality assurance specialist (ammunition surveillance)
QD	quantity-distance
RAD	restricted-area decree
SAA	small arms ammunition
SCG	storage-compatibility group
SOP	standing operating procedure
SSA	supply support activity
TM	technical manual
UR	USAREUR regulation
USAFE	United States Air Forces in Europe
USAREUR	United States Army, Europe
USEUCOM	United States European Command

TERMS

ammunition

Type of munitions normally containing explosives, propellant, pyrotechnics, initiating composition, or chemical material that is designed to inflict damage on structures, personnel, material, or military objectives. Ammunition includes bombs, cartridges, detonators, fuses, grenades, mines, projectiles (such as bullets), propellants, pyrotechnics, and shot and their primers.

approved

Complying with the provisions of this regulation and with instructions and details issued by the CG, USAREUR/7A, or with those of other approving agencies to which this regulation specifically refers.

blast

The brief and rapid movement of air or fluid away from a center of outward pressure, as in an explosion; or the pressure accompanying this movement.

chemical agent

A chemical compound used in military operations to kill, seriously injure, or incapacitate persons through its chemical properties.

employees and personnel

Persons employed within the confines of an installation and all authorized transients.

explosives

Any chemical compound or mechanical mixture that, when subjected to heat, impact, friction, detonation, or other suitable initiation, undergoes a very rapid chemical change with the evolution of large volumes of highly heated gases that exert pressure on the surrounding medium. The term applies to material that either detonates or deflagrates.

flammable material

A material that is easily ignited and burns readily.

fragmentation

The breaking up of the confining material of a chemical compound or mechanical mixture when an explosion takes place. Fragments may be complete items, subassemblies, pieces thereof, or pieces of equipment or buildings.

operational necessity

A mission associated with war or peacetime operations in which the consequences of an action justify the risk or loss of equipment and personnel.